## **CLAIMS**

1. A process for producing a racemic or optically active  $\alpha$ -methylcysteine derivative represented by general formula (2):

5

10

$$H_2N \longrightarrow OH$$
 (2)

(wherein  $R^1$  represents a substituted or unsubstituted alkyl group having 1 to 20 carbon atoms, a substituted or unsubstituted aralkyl group having 7 to 20 carbon atoms, or a substituted or unsubstituted aryl group having 6 to 20 carbon atoms), the process comprising a step of hydrolyzing a racemic or optically active N-carbamyl- $\alpha$ -methylcysteine derivative represented by general formula (1):

$$H_{2}N \longrightarrow NH \longrightarrow OH$$
 (1)

- 15 (wherein  $R^1$  is as defined above) by treating with decarbamylase.
  - 2. The process according to claim 1, wherein the N-carbamyl- $\alpha$ -methylcysteine derivative (1) and the resultant  $\alpha$ -methylcysteine derivative (2) are optically active.
- 20 3. The process according to claim 1 or 2, wherein the N-carbamyl- $\alpha$ -methylcysteine derivative (1) and the resultant

 $\alpha$ -methylcysteine derivative (2) are L-isomers.

4. A process for producing an optically active  $\alpha-$  methylcysteine derivative represented by general formula (2):

$$H_2N$$
  $OH$  (2)

5 (wherein R¹ represents a substituted or unsubstituted alkyl group having 1 to 20 carbon atoms, a substituted or unsubstituted aralkyl group having 7 to 20 carbon atoms, or a substituted or unsubstituted aryl group having 6 to 20 carbon atoms) and an optically active N-carbamyl-α-methylcysteine derivative having a configuration opposite to that of the compound, the process comprising a step of stereoselectively hydrolyzing a racemic N-carbamyl-α-methylcysteine derivative represented by general formula (1):

$$H_{2}N \longrightarrow NH \longrightarrow OH$$
 (1)

- 15 (wherein  $R^1$  is as defined above) by treating with decarbamylase.
  - 5. The process according to claim 4, wherein the resultant  $\alpha$ -methylcysteine derivative (2) is an L-isomer.
- 6. The process according to any one of claims 1 to 5, wherein
  the decarbamylase is derived from microorganisms belonging
  to genus Agrobacterium, Rhizobium, or Pseudomonas.

- 7. The process according to any one of claims 1 to 5, wherein the decarbamylase is derived from Agrobacterium sp. KNK712 (FERM BP-1900), Rhizobium sp. KNK1415 (FERM BP-4419), or Pseudomonas sp. KNK003A (FERM BP-3181).
- 5 8. The process according to any one of claims 1 to 5, wherein the decarbamylase is derived from Escherichia coli HB101 (pNT4553) (FERM BP-4368).
  - 9. The process according to any one of claims 1 to 8, wherein the decarbamylase is used in the form of an immobilized enzyme.
- 10. The process according to any one of claims 1 to 9, wherein  $\mathbb{R}^1$  is a substituted or unsubstituted tertiary alkyl group having 4 to 15 carbon atoms.
  - 11. The process according to any one of claims 1 to 9, wher  $ein\ R^1$  is a tert-butyl group.